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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,507	08/31/2006	Masayoshi Hirose	2005_0699A	5056
513	7590	12/01/2006	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			GRANT, ALVIN J	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			3723	

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/534,507

Applicant(s)

HIROSE ET AL.

Examiner

Alvin J. Grant

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/5/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 11 is objected to because of the following informality:

In line 10, change "fluid chamber:" to read, "fluid chamber;"

2. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-5** rejected under 35 U.S.C. 102(b) as being anticipated by Sakai JP 10-6207 A.

Regarding **claim 1**: Sakai discloses a polishing apparatus including a polishing object holding mechanism (**49**), a table (**14**) having a polishing surface, wherein the polishing object is held by a polishing object holding mechanism, an elastic sheet (**26**) is stretched over an upper surface of the table, and a polishing pad (**28**) having a polishing surface on an upper side thereof is replaceably stretched over the elastic sheet.

Regarding **claim 2**, please see Figure 2.

Regarding **claim 3**, the recess is provided on an upper surface of the table, and an opening of the recess is covered with an elastic sheet to form a fluid chamber, the fluid

chamber being filled with a fluid **(24)** under a predetermined pressure, and a polishing pad having a polishing surface on an upper side thereof is replaceably stretched over the elastic sheet **(26)**.

Regarding **claims 4 and 5** please see Figs. 1 and 2.

5. **Claim 1, 3-5 and 7** are rejected under 35 U.S.C. 102(b) as being anticipated by Tosiyaushu JP 05-285825.

Regarding **claim 1**: Tosiyaushu discloses a polishing apparatus including a polishing object holding mechanism **(3)**, a table **(1)** having a polishing surface, wherein the polishing object is held by a polishing object holding mechanism, an elastic sheet **(para. 025)** is stretched over an upper surface of the table, and a polishing pad **(2)** having a polishing surface on an upper side thereof is replaceably stretched over the elastic sheet.

Regarding **claim 3**, the recess is provided on an upper surface of the table, and an opening of the recess is covered with an elastic sheet to form a fluid chamber, the fluid chamber being filled with a fluid **(para. 013)** under a predetermined pressure, and a polishing pad having a polishing surface on an upper side thereof is replaceably stretched over the elastic sheet **(para. 025)**.

Regarding **claims 4 and 5** please see Figs. 4, 5, 8 and 10.

Regarding **claim 7**, Tosiyaushu discloses an elastic sheet having of recesses is stretched over an upper surface of the table so that a fluid is sealed in between the elastic sheet and the upper surface of the table, and a polishing pad having a polishing surface on an upper side thereof is replaceably stretched over the elastic sheet **(Fig. 8)**.

6. **Claim 11** is rejected under 35 U.S.C. 102(b) as being anticipated by Nakata et al. 5,664,989.

Nakata et al. discloses a polishing apparatus including a polishing object holding mechanism for holding a polishing object to be polished, and a table having a polishing surface, wherein the polishing object held by the polishing holding mechanism is pressed against the polishing surface of the table and polished by relative movement between the polishing object holding mechanism and the polishing surface of the table, the polishing apparatus comprising: a recess-shaped fluid chamber provided annularly on an upper surface of the table; a fluid path for supplying a fluid to the fluid chamber; a rotary joint for supplying a pressure fluid to the fluid path; an elastic sheet provided over the fluid chamber, the elastic sheet being deformable according to a supply pressure of the fluid supplied from the fluid path; and a polishing pad placed over the elastic sheet, the polishing pad having a polishing surface on an upper side thereof (**Embodiment 5, Fig. 15**).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai in view of Cote et al. 5,558,563.

Sakai is described above. Sakai does not specifically disclose the use of pistons. Cote et al. discloses a polishing apparatus in which pistons are used to quickly adjust the pressure applied by the polishing pad to the object being polished. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the apparatus of Sakai et al to have pistons below the polishing pad so as to quickly adjust the pressure applied by the polishing pad to the object being polished.

9. **Claims 9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai in view of Inaba 6,033,292.

Sakai is described above. Sakai does not specifically disclose a retaining member for securing the elastic member. Inaba discloses a CMP apparatus in which the cover member is secured to the table with a retaining member so as to further secure the pad to the table. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the cover of Sakai's apparatus with retaining members as taught by Inaba so as to further secure it to the table.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J. Grant whose telephone number is (571) 272-4484. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alvin J Grant
Patent Examiner
Art Unit 3723

ajg

A handwritten signature in black ink, appearing to read "Alvin J. Grant", written in a cursive style.